

## **REMARKS**

As noted above, the Applicants appreciate the Examiner's thorough examination of the subject application.

Claims 1-4, 7-10, and 19-21 are pending in the application. Claims 5, 6, and 11-18 have been canceled previously. In the Office Action mailed 12 June 2007, the Examiner rejected claims 1-4, 7-10, and 19-21 under 35 U.S.C. § 103(a), as described in further detail below. Claim 1 and 19 are amended herein and claim 4 is cancelled. No new matter has been added.

Applicants respectfully request reconsideration and further examination of the application based on the following remarks and the Request for Continued Examination

### ***Claim Rejections – 35 U.S.C. § 103***

#### ***Claims 1, 2, 4, 7-9, and 19-21***

Concerning items 2-11 of the Office Action, claims 1, 2, 4, 7-9, and 19-21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,032,111 to Mohri et al. (“Mohri”) in view of U.S. Patent No. 6,587,822 to Brown et al. (“Brown”). Applicants note that by the present amendment, subject matter of claim 4 has been introduced into claims 1 and 19, while claim 4 has subsequently been canceled, rendering the rejection moot with regard to claim 4. Applicants respectfully traverse the rejection and ask for reconsideration for the following reasons.

One requirement for a rejection under 35 U.S.C. § 103(a) is that the cited reference(s) teach or suggest all of the limitations of the claim(s) at issue. In this situation, the combination of Mohri and Brown fails to teach or suggest all of the limitations of claim 1 (from which claims 2, 7-9, and 20 depend) and claim 19 (from which claim 21 depends), as will be described below.

Amended claim 1, representative of the independent claims subject to the rejection, recites the following:

1. A speech application system, comprising:

- A. a speech recognition (SR) system configured to receive an audio input and generate a context-independent result object representing all possible context-dependent interpretations of said audio input;
- B a speech application script, loaded at the SR system and configured to control said SR system, said application script defining one or more application contexts, said application contexts being represented as categories of interpretation, wherein said application script includes programming code written in a language chosen from a group of scripting languages comprising Jscript, PerlScript, or VBscript; and
- C. a result object evaluator, configured to receive said context-independent result object and said one or more application contexts and, as a function thereof, to generate a specific interpretation result corresponding to said audio input, and to return said interpretation result to said application script.

[Emphasis added]

In contrast with Applicants' claims, Mohri is directed to systems and methods for generating finite-state transducers from context-dependent rewrite rules that introduce context marking symbols only when and where they are needed. *See, e.g.,* Mohri, col. 4, lines 34-37. The finite-state transducers taught by Mohri are described as improvements on the method of modeling context-dependent rewrite rules (as used to represent linguistic phenomena), by finite-state transducers that previously taught by "*Regular Models of Phonological Rule Linguistics*," Ronald M. Kaplan *et al.*, *Computational Linguistics*, 20:331-378 (1994). *See, e.g.,* Mohri, col. 4, lines 38-53.

For the rejection, the Examiner alleges, *inter alia*, that Mohri teaches:

A. a speech recognition (SR) system (col. 6, line 55) configured to receive an audio input (S710, fig 15, col 6, line 55-59) and generate context-independent result object (S740, fig. 15) representing all possible context-dependent interpretations (S730, fig 15) of said audio input so as to be context independent (elements of fig 15, col 19, lines 4-39).

[Emphasis added]

Applicants take issue with and traverse the Examiner's equating of the teachings of Mohri with the limitations of Applicants' claims, *e.g.*, independent claims 1 and 19.

The cited portion of Mohri is not understood as teaching anything regarding context-independent result objects. In fact, no portion of Mohri teaches using context-independent result objects as recited in Applicants' claims.

In making the rejection, the Examiner correctly admits, however, that Mohri fails to teach each the following limitations of the Applicants' claims, *e.g.*, as recited in claim 1:

Mohri does not specifically disclose B. a speech application script, loaded at the SR system and configured to task said SR system, said application script defining one or more application contexts, said application contexts being represented as categories of interpretations; and  
C. result object evaluator, as a function thereof, to generate a specific interpretation result corresponding to said audio input, and to return said interpretation result to said application script.

In an attempt to cure the deficiencies noted for Mohri, the Examiner cites Brown as a secondary reference:

However, Brown discloses B. a speech application script (col 2, lines 9-21 and col 13, lines 19-25), loaded at the SR system and configured to task said SR system, said application script defining one or more application contexts, said application contexts being represented as categories of interpretation (col 2, lines 9-21 and col 13, lines 19-35); and  
C. result object evaluator, as a function thereof, to generate a specific interpretation result corresponding to said audio input, and return said interpretation result to said application script (voice interpretation, col. 13, lines 19-35; lines 37-46).

[Emphasis added]

Applicants take issue with and respectfully traverse the Examiner's equating of the emphasized portions of Brown with the limitations of Applicants' claims.

In contrast with the claimed systems and methods, Brown is directed to Interactive Voice Response applications (IVR) over the Internet or other computer network. Brown teaches an IVR platform including a speech synthesizer, a grammar generator, and a speech recognizer. The speech synthesizer generates speech characterizing the structure and content of a web page retrieved over the

network. The speech is delivered to a user via a telephone or other audio interface device. *See Brown*, col. 1, lines 43-52. More specifically, Brown teaches a “platform for implementing interactive voice response (IVR) applications over the Internet or other type of network.” *See, e.g., Brown*, Abstract.

As taught by Brown, such a platform:

includes a speech synthesizer, a grammar generator and a speech recognizer. The speech synthesizer generates speech which characterizes the structure and content of a web page retrieved over the network. The speech is delivered to a user via a telephone or other type of audio interface device. The grammar generator utilizes textual information parsed from the retrieved web page to product a grammar. The grammar is supplied to the speech recognizer and used to interpret voice commands and other speech input generated by the user. The platform may also include a voice processor which determines which of a number of predefined modes best characterized a given retrieved page, such that the process of generating an appropriate verbal description of the page is considerably simplified. The speech synthesizer, grammar generator, speech recognizer and other elements of the IVR platform may be operated by an Internet Service Provider, thereby allowing the general internet population to create interactive voice response applications without acquiring there own IVR equipment.

(Brown, Abstract) [Emphasis added]

While Brown mentions that a Web page may contain a script to execute some operations on a host processor, **Brown does not teach or suggest use of a script to control an SR system.** Moreover, Brown makes no suggestion of a speech recognition (SR) system configured to receive an audio input and generate a context-independent result object representing all possible context-dependent interpretations of said audio input, *e.g.*, as recited in claim 1.

Further, Brown fails to teach or suggest, among other things, a speech application script, loaded at the SR system and configured to control the SR system, the application script defining one or more application contexts, the application contexts being represented as categories of interpretation, *e.g.*, as recited in claim 1.

Thus, the cited combination of Mohri and Brown fails to teach or suggest the limitations of

independent claims 1 and 19. Mohri and Brown are, therefore, an improper basis for a rejection of claims 1, 2, 4, 7-9, and 19-21 under 35 U.S.C. § 103(a), and Applicants request that the rejection be removed accordingly.

### Claims 3 and 10

Concerning items 12-14 of the Office Action, claims 3 and 10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Mohri in view of Brown, as applied to claims 1, 2, 4-9 and 20, and in further view of U.S. Patent No. 6,606,744 to Mikurak et al. ("Mikurak"). This rejection is respectfully traversed and reconsideration is requested for the following reasons.

As noted above, one requirement for a rejection under 35 U.S.C. § 103 is that the cited reference(s) teach or suggest all of the limitations of the claims at issue. In this situation, the combination of Mohri, Brown, and Mikurak fails to teach or suggest all of the limitations of independent claim 1 from which claims 3 and 10 depend, directly or indirectly.

As was described previously, the combination of Mohri and Brown fails to teach or suggest each and every limitation of claim 1 (the base claim for claims 3 and 10). The addition of the teachings of Mikurak fails to teach or suggest the deficiencies of Mohri and Brown noted previously for claim 1.

In contrast with the system of claim 1, Mikurak is directed to a system, method, and article of manufacture for collaborative installation management in a network-based supply chain environment. *See Mikurak*, col. 2, lines 53-55. While listing numerous applications for use with installation management, Mikurak is not understood as teaching or suggesting the deficiencies of Mohri and Brown relative to claim 1.

For example, Mikurak does not teach or suggest use of a script to control an SR system, e.g., as recited in claim 1. In particular, Mikurak makes no suggestion of a speech recognition (SR) system configured to receive an audio input and generate a context-independent result object representing all possible context-dependent interpretations of said audio input, *e.g.*, as recited in claim 1. Nor does Mikurak teach or suggest a speech application script including code of a script

language, loaded at the SR system and configured to control the SR system, the application script defining one or more application contexts, the application contexts being represented as categories of interpretation, *e.g.*, as recited in claim 1. Additionally, Mikurak fails to teach or suggest a result object evaluator, configured to receive the context-independent result object and the one or more application contexts and, as a function thereof, to generate a specific interpretation result corresponding to the audio input, and to return the interpretation result to said application script, *e.g.*, as recited in claim 1.

Thus, the combination of Mohri, Brown, and Mikurak, whether the references are considered alone or in combination, fails to teach or suggest all of the limitations of claim 1, which is therefore patentable over the combination. As claims 3 and 10 depend from claim 1, they are patentable for at least the same reason(s). The combination of Mohri, Brown, and Mikurak is therefore an improper basis for a rejection of claims 3 and 10 under 35 U.S.C. § 103(a), and the rejection should be withdrawn accordingly.

### ***Response to Arguments***

Regarding item 17 of the Office Action, the Examiner stated that, with regard to claim 1, “However, the system is only configured to process claimed steps rather than performing the claimed steps.” Applicants respectfully disagree with this statement as claim 1 as amended clearly recites functional ability of the system:

- 1 A speech application system, comprising:
  - A. a speech recognition (SR) system configured to receive an audio input and generate a context-independent result object representing all possible context-dependent interpretations of said audio input;
  - B a speech application script, loaded at the SR system and configured to control said SR system, said application script defining one or more application contexts, said application contexts being represented as categories of interpretation; and
  - C. a result object evaluator, configured to receive said context-independent result object

and said one or more application contexts and, as a function thereof, to generate a specific interpretation result corresponding to said audio input, and to return said interpretation result to said application script.

[Emphasis added]

Thus, Applicants respectfully submit that the Examiner may have misapprehended the limitations of Applicants' claims.

Concerning item 18 of the Office Action, Applicants respectfully submit that the amendments and remarks herein render the Examiner's comments as moot.

### **Conclusion**

In view of the amendments and remarks submitted herein, Applicant respectfully submits that all of the claims now pending in the subject application are in condition for allowance, and respectfully requests a Notice of Allowance for the application.

Authorization is hereby given to charge the fee for a Request for Continued Examination (RCE) under 37 C.F.R. § 1.114, or any other required fees for the prosecution of the subject application, and/or to credit any overpayments to deposit account No. 50-1133.

If the Examiner believes there are any outstanding issues to be resolved with respect to the above-identified application, the Examiner is invited to telephone the undersigned at his earliest convenience so that such issues may be resolved.

Respectfully submitted,

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